

Astro Shapes Inc.
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March 25, 2003

Mr. Richard H. Karney, P.E., Manager
Department of Energy
Energy Star Program
Building Technologies Program
1000 Independence Avenue, SW
Washington, DC 20585

Subject: Energy Star Proposed Changes of February 11, 2003

Dear Mr. Karney

Astro Shapes Inc. extrudes, paints and thermally improves aluminum profiles for the fenestration industry. We have been in business for 32 years and employ in excess of 400 people. Our annual sales are approximately \$80,000,000.00 with assets of about \$40,000,000.00. Eighty-percent of our extrusion products are used in the fenestration building product markets with seventy-percent being residential and thirty-percent commercial applications.

We pride ourselves in operating a successful company that offers security and stability to our large group of employees. The employees play an integral role in the success of the company and in return they rely on the company to provide income and health benefits for them and their families. We are very concerned that the existing, along with the newly proposed (February 11, 2003), Energy Star Program jeopardizes the future success of our company and threatens the available income of over four hundred families. This same threat exists for the many window and door manufacturing customers that we supply and the thousands of families that they provide for.

Astro Shapes is a member of the Aluminum Extruders Council (AEC) which is an industry association representing nearly every aluminum extrusion company in the USA. As a member we are very much aware of the AEC concerns and comments to the DOE regarding Energy Star and the subsequent impact it will have on aluminum extruded framing members used to manufacture fenestration products. We applaud their efforts and fully support the proposals they set forth. As you are well aware of, the AEC submitted a comprehensive response to the Energy Star proposal of May 2002. It is disturbing to us as an industry that our issues have not been addressed. From our point of view we see no change in the February 2003 proposal.

Astro Shapes has a particular concern regarding the maximum "U" factor of .35 in the northern region and your proposed maximum "U" factor of .40 in the central region. This unjust proposal eliminates aluminum residential windows in over 95% of the United States. If adopted, this proposal would eliminate over 1600 aluminum window products from the NFRC Directory, with the potential of putting 50 aluminum window manufacturers out of business. ***Vinyl extruders and window manufacturers along with the wood window manufacturers will certainly enjoy the windfall that this proposal will create by eliminating competition and creating a bias for their materials.*** The basis for determining the energy efficiency of a window solely on its "U" factor is unreasonable. The long-term energy performance of a fenestration product must be part of the equation. After many years of service, the window and its energy saving features designed to prevent air leakage must be evaluated and the results considered for the total energy performance of the unit. Based on previous long-term performance studies, after several years of exposure to climatic changes vinyl windows experience more degradation to energy saving features than that of the aluminum windows with thermal break. As you are aware, the NFRC is currently conducting another study to determine the long-term durability of different types of window framing materials and the impact they have on energy performance over the entire life of the unit. Knowing that such an issue exists, the DOE and Energy Star must review the results of those tests and evaluate ***the total energy performance*** of a product before adopting a standard solely based on "U" values.

Also of concern to us is an under utilization of different combinations of "U" value and SHGC to optimize energy savings. In running different analysis with the RESFEN program we have identified a variety of combination in different geographic regions that would save additional energy utilizing thermally broken aluminum framing. We can supply this analysis upon your request.

Further consideration should be made for the structural aspect of the various different types of framing materials, i.e. aluminum, vinyl and wood. It would be unjust and possibly unsafe to eliminate any one material from the market place because of its thermal conductivity. Aluminum is a key material for structural applications, particularly to meet tough impact-resistant codes that have been implemented in South Florida and are being considered in other coastal regions.

With more emphasis being placed on a longer life cycle for windows, the finishing capability of the framing materials used should also be considered. Aluminum windows can be painted with nearly any color imaginable utilizing various types of resin systems. Of particular interest are high performance paint products containing Kynar-based resins. These systems are factory applied and cured.

Through extensive testing and exposure in South Florida, paint companies such as PPG Industries have proven these products to be superior performers, retaining their color and gloss for over twenty years. To our knowledge, no other framing material has available such a coating. If the DOE precludes aluminum as a framing material because of its thermal conductivity and loses sight of the long-term benefits of aluminum windows, they are doing a severe injustice to the consumer.

In conclusion, we question whether the DOE has fully considered their own established key factors, (listed below) in developing the Energy Star Program for fenestration products.

- ?? Energy and environmental savings based on sales on the national level.
- ?? Assurance that the products offer the same or better performance than products currently available.
- ?? Assurances that the products and technologies are commercially available.
- ?? Assurances that the products are nonproprietary.
- ?? Assurances that the products do not favor certain materials or products and reduce competition or product availability.

If it were to follow its own criteria the DOE would recognize a product that performs to its energy saving requirements even though it doesn't meet the prescribed criteria. To fail to do so will lead to a program whose benefits to consumers and long-term energy savings are doubtful, at best.

Respectfully submitted,
Astro Shapes, Inc.

James DiBacco
Executive Vice President